1. (Original) A method of providing links to remotely located information in a network of remotely connected computers, said method comprising the steps of:

a) associating a shorthand link to each of a plurality of uniform resource locators (URLs);

b) logging associated shorthand links in a registry database;

c) searching said registry database for a shorthand link associated with an URL responsive to selection of said shorthand link; and

d) for each found said shorthand link, fetching said associated URL.

2. (Original) A method as in claim 1, wherein the step (a) of associating shorthand links comprises the steps of:

i) requesting registration of a URL;

ii) selecting an unused key; and

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iii) pairing said selected key with said URL as a shorthand link.

3. (Original) A method as in claim 2, wherein each key-URL pair is entered in the registry database.

4. (Original) A method as in claim 3, wherein said fetched associated URL is presented to a requestor, said requestor having selected said shorthand link.

5. (Original) A method as in claim 3, wherein said fetched associated URL is presented to a requestor, said requestor having provided the paired key of the key-URL pair.

6. (Original) A method as in claim 5, wherein an error message is returned whenever a requestor provides a key not paired with a URL.

7. (Original) A method as in claim 5, wherein when a provided key not associated with a URL is identified as corresponding to a key in a key-URL pair, presenting the identified URL to said requestor.

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8. (Original) A method of providing links to remotely located information in a network of remotely connected computers, said method comprising the steps of:

a) associating a shorthand link to each of a plurality of files at a remotely connected location;

b) indexing shorthand links and associated files;

c) searching said index for a shorthand link associated with one of said plurality of files responsive to selection of said shorthand link; and

d) for each shorthand link found, fetching the associated indexed file.

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9. (Previously presented) A method as in claim 8, wherein the step (a) of associating shorthand links comprises the steps of:

i) creating a list of files at said remotely connected location; and

ii) selecting and associating an unused key with each listed file.

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10. (Original) A method as in claim 9, wherein said fetched file is presented to a requestor, said requestor having selected said shorthand link.

11. (Original) A method as in claim 9, wherein said fetched file is presented to a requestor, said requestor having provided the key associated with the fetched file.

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12. (Original) A method as in claim 11, wherein an error message is returned whenever a requestor provides a key not associated with a file.

13. (Original) A method as in claim 11, wherein when a key not associated with a file is identified as corresponding to a key associated with a file, providing the file associated with the identified key to said requestor.

14. (Original) A computer program product for providing links to remotely located information in a network of remotely connected computers, said computer program product comprising a computer usable medium having computer readable program code thereon, said computer readable program code comprising:

computer readable program code means for associating a shorthand link to each of a plurality of uniform resource locators (URLs);

computer readable program code means for registering associated shorthand links in a database;

computer readable program code means for searching said database for a shorthand link associated an URL responsive to selection of said shorthand link; and

computer readable program code means for fetching any found said associated URL.

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15. (Original) A computer program product as in claim 14, wherein the computer readable program code means for associating shorthand links comprises:

computer readable program code means for requesting registration of a URL;

computer readable program code means for selecting an unused key; and

computer readable program code means for pairing said selected key with said URL as a shorthand link.

16. (Original) A computer program product as in claim 15 further comprising:

computer readable program code means for maintaining said database of registered key-URL pairs.

17. (Original) A computer program product as in claim 16 further comprising:

computer readable program code means for presenting an URL to a requestor responsive to said requestor selecting an associated shorthand link.

18. (Original) A computer program product as in claim 16 further comprising:

computer readable program code means for presenting an URL to a requestor responsive to said requestor providing a corresponding paired key.

19. (Original) A computer program product as in claim 18 further comprising:

computer readable program code means for determining whether a provided key is a paired key; and

computer readable program code means for indicating an error whenever said provided key is determined not to be a paired key.

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20. (Original) A computer program product as in claim 18 further comprising:

computer readable program code means for determining whether a provided key is a paired key;

computer readable program code means for determining whether said provided key corresponds to a paired key whenever said provided key is determined not to be a paired key; and

computer readable program code means for presenting an URL paired with said corresponding identified key.

21. (Original) A computer program product for providing links to remotely located information in a network of remotely connected computers, said computer program product comprising a computer usable medium having computer readable program code thereon, said computer readable program code comprising:

computer readable program code means for associating a shorthand link with each of a plurality of files at a remotely connected location;

computer readable program code means for indexing shorthand links and associated files;

computer readable program code means for searching said index for a shorthand link associated with one of said plurality of files responsive to selection of said link; and

computer readable program code means for fetching an associated indexed file for each found said shorthand link.

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22. (Original) A computer program product as in claim 21, wherein the computer readable program code means for associating shorthand links comprises:

computer readable program code means for creating a list of files at said remotely connected location; and

computer readable program code means for selecting and associating an unused key with each listed file.

23. (Original) A computer program product as in claim 22, further comprising:

computer readable program code means for receiving an indication of selection of a shorthand key.

24. (Original) A computer program product as in claim 23, wherein an associated key is provided to request said file.

25. (Original) A computer program product as in claim 24 further comprising:

computer readable program code means for determining whether a provided key is associated with an indexed file; and

computer readable program code means for indicating an error whenever a provided key is determined not to be associated with an indexed file.

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26. (Original) A computer program product as in claim 24 further comprising:

computer readable program code means for determining whether a provided key is associated with an indexed file;

computer readable program code means for determining whether said provided key corresponds to a key associated with an indexed file whenever said provided key is determined not to be associated with an indexed file; and

computer readable program code means for presenting the indexed file associated with said corresponding identified key.

REJECTIONS UNDER 35 U.S.C. 103(a)

In response to paragraph 4 of the Office Action, Applicants respectfully traverse the rejections under 35 U.S.C. 103(a). Remarks below regarding claims 1-7 apply to all the claims; claims 8-13 have been rejected on the same basis as claims 1-7, and claims 14-26 have been rejected on the same basis as claims 1-13 with the exception of computer readable program code means. Dependent claims are allowable by virtue of their dependence on allowable claims, as well as their own additional limitations.

Stern teaches a web crawler that processes web pages (e.g. a subset of a particular web site) to collect and extract information about people and organizations. The internal links of a web site are recorded in a links-to-visit table, i.e. Stern identifies web pages that are in a given web site that are to be subsequently crawled and processed. These pages may be manually accessed by a clicking on a graphic or a string of text ("link text") that is often differently colored and underlined in a web page (see page 2 paragraph 29) to trigger navigation to a target URL (page 2 paragraph 29). FIG. 3 lists original URLs and corresponding link texts. Stern also teaches the ability to select internal links-to-visit according to keywords; for example, if a script extracts a quoted phrase ending in ".ASP", ".HTM", or ".HTML", that quoted phrase may be treated as an internal link (page 3 paragraph 55). Stern also maintains a database storing a variety of information about various web sites.

However, Stern does not provide links as taught and claimed by the present invention. Stern fails to teach or suggest searching a database for a shorthand link associated with a URL responsive to selection of a shorthand link e.g. by a user of a web browser. The shorthand link of the present invention is not the same as the conventional graphic or "link

text" described by Stern but is instead a new compact way of solving the problems that may arise with large unwieldy URLs. For example, as stated on page 2 lines 8-19, handling conventional URLs with limited resources (such as web browsers running on wireless web appliances) can become troublesome without a compact means for specifying Internet resource locations. Stern uses a unique identifier for a web site to prevent duplicate processing of a web site that has previously been processed, but this identifier is available only to Stern's internal database, and is not provided externally.

Liddy does not remedy the shortcomings of Stern. Applicants specifically disagree with the assertion that Liddy "teaches searching said registry database for a shorthand link associated with an URL responsive to selection of said shorthand link". Liddy neither teaches nor suggests shorthand links. Instead, Liddy teaches agents that retrieve documents from a network at a network address (i.e. URL) and at other addresses linked from the document (as indicated by "link text" in the language of Stern), and then executing a search on different search engines. Liddy's agents may also include artificial neural networks. However, the cited Liddy items 75, 79, and 79A are not shorthand links but simply URLs that may be added to training sets for the artificial neural networks. Liddy says this directly in column 11 lines 33-35, "Each entry on the list of documents in window 78 represents the address (URL) of a document." Cited portions of Liddy (column 4 lines 55-59 and column 11 lines 55-57) merely indicate that the crawler agents continue to search Web sites and retrieve documents, sometimes starting at the address of retrieved documents.

All pending claims are believed to be allowable, as Stern and Liddy neither separately nor in combination teach or suggest the features of the present invention. References cited but not used as the basis of rejections have been reviewed. The Examiner

is invited to call Applicant's undersigned representative if a telephone conference will expedite the prosecution of this application.

Respectfully submitted,

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